

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 1. (Original): A method for protecting a target circuit, the method
2 comprising:
3 detecting power from a source of power;
4 coupling the power to the target circuit in a gradual manner;
5 detecting noise components in the power; and
6 varying the amount of power delivered to the target circuit in response to the
7 noise component.

1 2. (Original): The method of claim 1 wherein the step of coupling includes
2 controlling the conductivity of a transistor device, the transistor device having series-connection
3 between the source of power and the target circuit.

1 3. (Original): The method of claim 1 wherein the step of coupling includes
2 controlling the conductivity of a transistor device, the transistor device having series-connection
3 between the source of power and the target circuit.

1 4. (Original): A method for protecting a target circuit, the method
2 comprising:
3 detecting power from a source of power;
4 coupling the power to the target circuit in a gradual manner;
5 detecting when a current supplied to the target circuit exceeds a threshold; and
6 decoupling the power in response to detecting that the current supplied to the
7 target circuit exceeds a threshold.

1 5. (Original): A circuit comprising:
2 a switch configured to couple a target circuit with a source of power;
3 a first detector configured to detect power provided by the source of power, the
4 first detector operatively coupled with the switch, wherein the switch closes responsive to the
5 first detector; and
6 a second detector configured to detect noise in the power, the second detector
7 operatively coupled to the switch, wherein a conductivity of the switch varies responsive to the
8 second detector.

1 6. (Original): The circuit of claim 5 wherein the second detector couples
2 between the source of power source and a gate of the switch.

1 7. (Original): The circuit of claim 5 further including a positive terminal and
2 a negative terminal, wherein the switch is a transistor device having a gate, a source, and a drain,
3 wherein the second detector comprises:
4 a bias voltage source;
5 an operational amplifier having:
6 an inverting input coupled with the positive terminal and coupled with the
7 bias voltage source;
8 a non-inverting input coupled with a negative terminal; and
9 an output coupled to the gate of the switch.

1 8. (Original): The circuit of claim 7 wherein the output of the operational
2 amplifier couples with the first detector.

1 9. (Original): The circuit of claim 7 wherein the bias voltage source coupled
2 with the first detector.

1 10. (Original): The circuit of claim 9 wherein the bias voltage source is a
2 voltage divider.

1 11. (New): A circuit for coupling a power source to an electronic device
2 comprising:

3 first circuit means for detecting a connection event wherein a connection is made
4 between a device and a power source, the first circuit means configured to be selectively coupled
5 to and decoupled from the power source;

6 second circuit means, responsive to the first circuit means, for coupling power
7 from the power source to the electronic device so that power is applied to the electronic device in
8 a gradual manner;

9 third circuit means for detecting an overcurrent event wherein the electronic
10 device draws current from the power source exceeding a predetermined level of current; and

11 fourth circuit means for reducing the amount of power that is applied to the
12 electronic device in response to the third means.

1 12. (New): The circuit of claim 11 further including fifth circuit means for
2 producing a signal indicative of an occurrence of the overcurrent event.

1 13. (New): The circuit of claim 11 further including a first connection
2 terminal and a second power connection terminal, the power connection terminals suitable for
3 connection to the power source, the third circuit means operable to detect an overcurrent event
4 by monitoring electrical activity on only one of the first and second connection terminals.

1 14. (New): The circuit of claim 11 further including fifth circuit means for
2 detecting electrical noise in the power, the second circuit means further being responsive to the
3 fifth circuit means by varying the amount of power that is applied to the electronic device.

1 15. (New): The circuit of claim 11 wherein the fourth circuit means is
2 effective for decoupling the power supply from the electronic device.

1 16. (New): A circuit for coupling a power source to a device comprising:
2 first circuit means for detecting a connection event wherein a connection is made
3 between a device and a power source, the first circuit means configured to be selectively coupled
4 to and decoupled from the power source;
5 second circuit means, responsive to the first circuit means, for coupling power
6 from the power source to the device, the second circuit means operable to vary the amount of
7 power that is applied to the device;
8 third circuit means for detecting a change in an electrical parameter of the second
9 circuit means indicative of a disconnection between the circuit and the power source;
10 fourth circuit means for decoupling the power source from the device in response
11 to the third means.

1 17. (New): The method of claim 16 further including fifth circuit means for
2 producing a signal indicative of an occurrence of the disconnection between the circuit and the
3 power source.

1 18. (New): The circuit of claim 16 further including fifth circuit means for
2 detecting electrical noise in the power source, the second circuit means further being responsive
3 to the fifth circuit means by varying the amount of power that is applied to the device.

1 19. (New): A circuit for coupling a power source to a device comprising:
2 first circuit means for detecting a connection event wherein a connection is made
3 between a device and a power source, the first circuit means configured to be selectively coupled
4 to and decoupled from the power source;
5 second circuit means, responsive to the first circuit means, for providing a varying
6 amount of power from the power source to the device;
7 third circuit means for detecting when the device draws current from the power
8 source exceeding a predetermined level of current;

9 fourth circuit means for decoupling the power source from the device in response
10 to the third means;

11 fifth circuit means for detecting a change in an electrical parameter of the second
12 circuit means indicative of a disconnection between the circuit and the power source; and

13 sixth circuit means for decoupling the power source from the device in response
14 to the fifth means.

1 20. (New): The circuit of claim 19 further including seventh circuit means for
2 detecting electrical noise in the power, the second circuit means further being responsive to the
3 seventh circuit means by varying the amount of power that is applied to the device.